AMENDMENTS TO THE CLAIMS:

Claims 1, 2, 4-15, 18-24, 26-31, and 33-49 are pending in the subject application. Each of claims 1, 18, and 34 has been amended herein. This Listing of Claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Currently Amended) A method for estimating appropriate advertisement inventory, the method comprising:

obtaining one or more advertisement target market segment criteria from an advertiser for delivering at least one advertisement;

utilizing a first computing process, generating a target market segment array corresponding to each of the one or more advertisement target market segment criteria wherein each target market segment array includes a plurality of array elements, each array element corresponding to a period of time;

obtaining an advertisement request from one of a user and a content provider, the advertisement request including one or more target market data elements, and the advertisement request being associated with a time;

upon determining that at least one of the one or more target market data elements corresponds to a particular one of the one or more advertisement target market segment criteria obtained from the advertiser, incrementing a numerical identifier in one or more of the plurality of array elements included in the target market segment array that corresponds to the particular one of the one or more advertisement target market segment criteria, utilizing a second computing process; [[and]]

processing, utilizing a third computing process, a plurality of numerical identifiers incremented in association with the one or more target market segment arrays to determine appropriate advertisement inventory at a particular time;

providing the plurality of numerical identifiers and the one or more target market segment arrays to an advertisement processing component; and

determining, using a fourth computing process, an inventory of advertisements at the processing component based on the plurality of numerical identifiers and the one or more target market segment arrays,

wherein the first, [[and]]second, third, and fourth computing processes are performed by one or more computing devices.

2.   (Previously Presented)   The method as recited in Claim 1, wherein generating a target market segment array corresponding to each of the one or more advertisement target market segment criteria includes:

parsing the one or more advertisement target market segment criteria in a particular order; and

generating the target market segment arrays in an order corresponding to the particular order of the one or more advertisement target market segment criteria.

3.   (Canceled).

4.   (Previously Presented)   The method as recited in Claim 1, wherein the processing of the plurality of numerical identifiers includes applying a trend analysis.

5.   (Original)   The method as recited in Claim 4, wherein the trend analysis includes a least-squared trend analysis.

6.   (Previously Presented)   The method as recited in Claim 4, wherein the trend analysis includes a linear regression trend analysis.

7.   (Previously Presented)   The method as recited in Claim 4, wherein the trend analysis includes a set theory trend analysis.

8.   (Previously Presented)   The method as recited in Claim 1, wherein the at least one advertisement is from an advertisement campaign.

9.   (Previously Presented)   The method as recited in Claim 8, wherein the one or more advertisement target market segment criteria includes user demographic information.

10.   (Original)   The method as recited in Claim 9, wherein the user demographic information includes a user age.

11.   (Original)   The method as recited in Claim 9, wherein the user demographic information includes a user gender.

12.   (Previously Presented)   The method as recited in Claim 8, wherein the one or more advertisement target market segment criteria includes one or more keywords.

13.   (Previously Presented)   The method as recited in Claim 8, wherein the one or more advertisement target market segment criteria includes an identifier of a target content provider.

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14.   (Previously Presented)   The method as recited in Claim 1, wherein the numerical identifier corresponds to the time associated with the advertisement request.

15.   (Previously Presented)   The method as recited in Claim 14, wherein each of the plurality of array elements is representative of a 1-hour time increment.

16-17. (Canceled).

18.   (Currently Amended) A computerized advertisement delivery system embodied on one or more computer-storage media having computer-executable instructions embodied thereon for processing advertisement requests, the advertisement requests each being associated with one or more target market data elements, the system comprising:

    an advertisement client component operable to obtain one or more advertisement target market segment criteria from an advertiser for delivering at least one advertisement and ~~generate~~ generating a target market segment array corresponding to each of the one or more advertisement target market segment criteria, wherein each target market segment array includes a plurality of array elements, each array element corresponding to a period of time, the advertisement client component further operable to obtain an advertisement request from one of a user and a content provider, the advertisement request including one or more target market data elements, and increment a numerical identifier in one or more of the plurality of array elements corresponding to a time associated with the advertisement request;

    an advertisement processing component operable to parse an advertisement associated with the advertisement request and estimate available

advertisement inventory based on the target market segment array corresponding to each of the one or more advertisement target market segment criteria for delivering the at least one advertisement; and

an advertisement manager component operable to obtain atomic market segment data by evaluating the one or more advertisement target market segment criteria using the target market segment arrays and to process the atomic market segment data for at least one of capacity planning and inventory management.

19. (Previously Presented) The system as recited in Claim 18, wherein the at least one advertisement is from an advertisement campaign.

20. (Previously Presented) The system as recited in Claim 19, wherein the one or more advertisement target market segment criteria includes user demographic information.

21. (Original) The system as recited in Claim 20, wherein the user demographic information includes a user age.

22. (Original) The system as recited in Claim 20, wherein the user demographic information includes a user gender.

23. (Previously Presented) The system as recited in Claim 18, wherein the one or more advertisement target market segment criteria includes one or more keywords.

24. (Previously Presented) The system as recited in Claim 18, wherein the one or more advertisement target market segment criteria includes an identifier of a target content provider.

25.   (Canceled).

26.   (Previously Presented)   The system as recited in Claim 18, wherein the advertisement manager component is operable to generate future advertisement data and advertisement request capacity data by processing the atomic market segment data.

27.   (Previously Presented)   The system as recited in Claim 26, wherein the advertisement manager component generates future inventory advertisement data by applying a forecasting method.

28.   (Original)   The system as recited in Claim 27, wherein the forecasting method includes a least-squared trend analysis.

29.   (Previously Presented)   The system as recited in Claim 27, wherein the forecasting method includes a linear regression trend analysis.

30.   (Previously Presented)   The system as recited in Claim 27, wherein the forecasting method includes a set theory trend analysis.

31.   (Previously Presented)   The method as recited in Claim 1, wherein the plurality of array elements includes 168 array elements.

32.   (Canceled).

33.   (Previously Presented)   The system as recited in Claim 18, wherein the advertisement manager component is operable to generate advertisement campaign compliance data by processing the atomic market segment data.

34.   (Currently Amended) One or more computer-storage media having computer-executable components embodied thereon that, when executed by a computing device, perform a method for estimating available advertisement inventory, the computer-storage medium comprising:

a payload processing component operable to obtain one or more advertisement target market segment criteria corresponding to an advertisement request and generate one or more target market segment arrays corresponding to each advertisement target market segment criterion, wherein each target market segment array includes a plurality of array elements corresponding to periods of time, wherein the payload processing component is further operable to obtain an advertisement request associated with a time, the advertisement request including one or more target market data elements, and wherein the payload processing component is further operable to increment a numerical identifier in the plurality of array elements corresponding to the time associated with the advertisement request; and

a payload manager, the payload manager operable to evaluate the one or more advertisement target market segment criteria using the one or more target market segment arrays and to process data within the one or more target market segment arrays to estimate available advertisement inventory.

35.   (Previously Presented)   The one or more computer-storage media as recited in Claim 34, wherein the advertisement request is associated with an advertisement from an advertisement campaign.

36.   (Previously Presented)   The one or more computer-storage media as recited in Claim 34, wherein the one or more advertisement target market segment criteria includes user demographic information.

37.   (Previously Presented)   The one or more computer-storage media as recited in Claim 36, wherein the user demographic information includes a user age.

38.   (Previously Presented)   The one or more computer-storage media as recited in Claim 37, wherein the user demographic information includes a user gender.

39.   (Previously Presented)   The one or more computer-storage media as recited in Claim 34, wherein the one or more advertisement target market segment criteria includes one or more keywords.

40.   (Previously Presented)   The one or more computer-storage media as recited in Claim 34, wherein the one or more advertisement target market segment criteria includes an identifier of a target content provider.

41.   (Previously Presented)   The one or more computer-storage media as recited in Claim 34, further comprising a user information component operable to obtain a user identifier and provide user identifier criteria to the one or more target market data elements.

42.   (Previously Presented)   The one or more computer-storage media as recited in Claim 34, wherein each target market segment array includes 168 array elements.

43.   (Previously Presented)   The one or more computer-storage media as recited in Claim 42, wherein each of the plurality of array elements is representative of a l-hour time increment.

44.   (Previously Presented)   The one or more computer-storage media as recited in Claim 34, wherein the payload manager is operable to generate future payload and request capacity data by processing data within the one or more target market segment arrays.

45.   (Previously Presented)   The one or more computer-storage media as recited in Claim 44, wherein the payload manager generates future inventory payload data by applying a forecasting method.

46.   (Previously Presented)   The one or more computer-storage media as recited in Claim 45, wherein the forecasting method includes a least-squared trend analysis.

47.   (Previously Presented)   The one or more computer-storage media as recited in Claim 45, wherein the forecasting method includes a linear regression trend analysis.

48.   (Previously Presented)   The one or more computer-storage media as recited in Claim 45, wherein the forecasting method includes a set theory trend analysis.

49.   (Previously Presented)   The one or more computer-storage media as recited in Claim 34, wherein the payload manager is operable to generate advertisement campaign compliance data by processing data within the one or more target market segment arrays.